REMARKS

The present document is submitted in reply to the Office Action dated January 15, 2010 ("Office Action").

Claims 1-3, 5-7, 9-12, and 14-23 are currently pending and being examined. Claims 4, 8, 13, and 24-30 were previously cancelled. Applicants respectfully request that the Examiner reconsider this application in view of the following remarks.

All of the claims under examination are rejected for obviousness over Sato et al., US Patent 5,245,154 ("Sato") in view of Zottu, US 3,496,645 ("Zottu"). See the Office Action, pages 2-4. These claims are all drawn to a method for conditioning a lingocellulosic substrate.

Sato discloses a method for heating a wood material and an apparatus for carrying out the heating method. See claim 1 and the abstract. Zottu discloses heating the interior of the wood by RF to a temperature higher than the boling of the moisture of the wood. See the abstract.

In their Reply to the Final Office Action dated June 16, 2009 ("Reply"), Applicants brought to the Examiner's attention a substantial difference between the claimed method and the Sato method. Namely, these two methods require very different pressure conditions under which a wood material is heated, i.e., **above-atmospheric** *versus* **below or at atmospheric**. See page 7, second and third paragraphs. Applicants further pointed out that, Sato discourages a skilled person in the art to heat a wood material at an **above atmospheric pressure**, as doing so would destroy what the Sato method intends to achieve, i.e., **preventing deformation of the wood material**. See page 7, third paragraph. Applicants thus concluded that the claimed method is not obvious over Sato, in view of Zottu, which does not cure the deficiency of Sato.

In response, the Examiner asserts that:

> "Sato discloses the pressure in the *tank 7* is operated to **reduce 1 to 100 Torr** (0.0193 PSI to 1.93 PSI) or less, preferably 30-60 Torr (0.58 PSI to 1.16 PSI) (col. 8, lines 29-34). Sato also discloses the temperature of water in the tank can be at 100 °C or more (col. 8, lines 37-41). The pressure in the *tank 7* of Sato is **above the atmospheric**." See the Office Action, pages 3-4, bridging paragraph; *emphases added.*

He then proceeds to conclude that Sato "only mentioned pressure reduction, but it does not have to be below or at atmospheric." See the Office Action, page 3, last paragraph.

Applicants would like to point out that the Examiner has completely misinterpreted the text in Sato he relies on to support the above-quoted assertion. To facilitate discussion, Applicants reproduce the cited Sato text below:

> "Thereafter, the vacuum pump 17 is operated to reduce the pressure in the *closed container 1* to **100 Torr** or less, preferably 30 to 60 Torr. The circulating pump 8 is operated to feed and circulate the warm water, which is heated to 30 °C to 60 °C in the *heating medium tank 7*, from the heating medium feeding passageway 9 to the heating medium passageway 15 in the heating plate 14 through the heating medium header 6.
>
> With the above-mentioned structure, the water is controlled to have its temperature continuously increased or decreased from an ordinary one to the desired one, furthermore 100 °C or more in the *heating medium tank 7*. ..." See column 8, lines 29-41.

This Sato text cited by the Examiner teaches (1) reducing the pressure in a closed container, i.e., *closed container 1* (see Fig. 1), to **100 Torr or less**, and (2) pumping hot water from *tank 7* (see Fig. 1) to the heating medium passage way 15 inside *closed container 1* (see Fig. 1 and Fig. 2). According to Sato, a wood material is placed inside *container 1* for reformation and drying. See column 6, lines 49-52; and column 7, lines 19-23. Taken together, the text relied on by the Examiner teaches heating a wood material inside a closed container with hot water, the pressure in the closed container being reduced to **100 Torr or less.** This pressure is far below atmosphere, i.e., **760 Torr**! In other words, contrary to the Examiner's interpretation, the text in Sato cited by him and quoted above teaches heating a wood material in a closed container at a **below-atmospheric pressure**, i.e., **100 Torr or less.**

Indeed, the Examiner has erroneously interpreted the Sato text cited by him in at least two aspects.

First, he has misinterpreted heating medium *tank 7* as a closed container in the Sato apparatus for heating a wood material. As shown in Fig. 1, *tank 7* is a

container for storing a heating medium, e.g., hot water. Sato explicitly states that "*tank 7* is provided as a heating medium feeder in an externally proper portion of the *closed container 1* (in which a wood material is heated)." See column 6, lines 58-60. Without any ambiguity, *closed container 1*, **NOT** *tank 7* as the Examiner believes, is the part in the Sato apparatus that corresponds to the constrained environment used in the claimed method. As such, the Examiner's assertion that "[t]he pressure in the *tank 7* of Sato is **above the atmospheric**" (see page 4, first paragraph; *emphases added*) does **NOT** lead to his conclusion that Sato teaches heating a wood material in *a closed container* having an **above-atmospheric pressure**.

Second, the Examiner has misread the phrase "to reduce the pressure in the closed *container 1* to **100 Torr or less**" as reducing pressure by a range of **1 to 100 Torr**. Applicants would like to point out that the number "*1*" in this phrase does not refer to the lower limit of a pressure range, as misread by the Examiner. Rather, it refers to the numerical designation of the *closed container* in the Sato apparatus. See Fig. 1 and column 6, lines 40-42 and lines 44-46. Thus, the phrase quoted immediately above actually teaches reducing the pressure in *closed container 1*, shown in Fig. 1, to **100 Torr or less**, which is far below atmospheric, **NOT** by a range of **1 to 100 Torr** as misread by the Examiner. In other words, contrary to the Examiner's position, Sato explicitly teaches heating a wood material under **a far below atmospheric pressure** in a closed container.

In view of the above remarks, Applicants respectfully submit that the Examiner's ground for rejection is based on his misinterpretations of Sato. Withdrawal of the rejection is therefore respectfully requested.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the

arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

No fee is believed to be due. Please apply any other charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 65501-003US1.

Respectfully submitted,

Date: 4/16/2010

Y. Jenny Chen, Ph.D., J.D.
Attorney at Law
Reg. No. 55,055

Customer No. 69713
Occhiuti Rohlicek & Tsao LLP
10 Fawcett Street
Cambridge, MA 02138
Telephone: (617) 500-2511
Facsimile: (617) 500-2499
138325.doc